

**AUTOMATED INSTALLATION OF NETWORK SERVICE  
IN A TELECOMMUNICATIONS NETWORK**

**Abstract of the Invention**

5 Network service request for a communication line is installed in a network by automating a design phase and a configuration phase for the service and further by automating the recovery from a failure in either of the phases. In the design phase, an optimal route for the communication line to satisfy the required capacity is found, and the network components are  
10 provisioned and assigned. If the assigned network components are not available or can not be validated so that the design fails, the components causing the failure are marked, and the operation flow reverts back to retry the design phase without the marked components. After the design phase is successfully completed, the configuration phase begins. In the first part of configuration phase, the circuit design is tested against actual network components. If the test is  
15 passed, the actual network is configured according to the circuit design and the circuit is activated. If there is a network component failure during the configuration phase, the good route elements in the design are released while the failed network components are marked. The design is purged from the system and the operational flow returns to retry the design phase. This automated operational flow repeats until a circuit design is found that may be validated and  
20 configured.